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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/900,496 | 07/06/2001 | Michael Freed | NEXSI-01110US0 | 4132 |
| 28863 | 7590 | 02/11/2005 | EXAMINER | |
| SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125 | | | ALOMARI, FIRAS B | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2136 | |

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,496

Applicant(s)

FREED ET AL.

Examiner

Firas Alomari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>0311/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The Specification is objected to because of the following informalities:

line 14 of page 4 "ach" should be "each"

line 10 of page 11 "TCI/IP" should be "TCP/IP"

lines 6 and 7 of page 11 refer to a co-pending patent application without listing the application number and the inventors.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-7, 12, 15 and 19-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 09900493. This is a provisional obviousness-

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type double patenting rejection because the conflicting claims have not in fact been patented.

4. As to claims 1, 12, 23 and 30 of this application, claim 1 of the '493 application is a corresponding claim. Claims 11, 23 and 30 of this application do not include the step of authenticating the application data packet while claim 1 of the '493 application does. It would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the authentication step based on the legal precedent that the elimination of a step or an element and its function is obvious if the function is not desired. EX parte Wu, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989)

5. As to claims 5 and 7 of this application, claim 5 of the '493 application is a corresponding claim.

6. As to claim 20 of this application, claim 3 of the '493 application is a corresponding claim.

7. As to claim 21 of this application, claim 4 of the '493 application is a corresponding claim.

As to the remaining claims, the reasons for this provisional rejection should be obvious from the discussion of the claims above and the similarity between the claims of the two applications.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 13 recites the limitation "negotiation manager" in the first line. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Jardin US (6,681,327).

As to claim 1, 23 and 30: Jardin discloses A method for secure communications between a client and one of a plurality of servers performed on an intermediary device coupled to the client and said plurality of servers, comprising:

(a) establishing an open communications session between the intermediary device and the client via an open network;(items 210, 220, 230 and 240 of FIG

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2; describes the "handshake " between the client and the server which used to start any SSL communication between the server and the client)

(b) negotiating a secure communications session with the client;(Col 6, lines 40-47)

(c) establishing an open communications session with said one of said plurality of servers via a secure network;(Col 6, lines 40-47)

(d) receiving encrypted data from the client via the secure communications session; (Col 6, line 67;)

(e) decrypting encrypted application data; (Col 6, line 67)

(f) forwarding decrypted application data to the server via the secure network; (Col 7, line 4)

(g) receiving application data from the server via the secure network;(Col 8. line 23-25)

(h) encrypting the application data; and (Col 6, lines1-3 and items 250,260 of FIG.2)

(i) sending encrypted application data to the client.(Col 8, lines 24-26)

(j) detecting a communications anomaly in a communications session between the client and the intermediary device; and (Col 8, lines 31-35)

(k) passing TCP data from through the intermediary device. (Col 4, lines 37-43)

As to claim 2: Jardin discloses the method of claim 1 wherein said step (a) comprises the sub steps of:

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- receiving a request for a communications session from the client; (item 210 of FIG. 2)
- responding to the request for a communications session in place of the server; and (item 220 of FIG.2)
- establishing a secure communications session between the client and the intermediary device. (items 220,230 and 240 of FIG. 2 describes the “handshake “ between the client and the server which used to start any SSL communication between the server and the client)

As to claim 3: Jardin discloses the method of claim 2 wherein said step of (a) comprises:

- receiving a TCP SYN packet from a client and responding to the SYN packet with appropriate responses as a proxy for the server. (Col 4, lines 39-41)

As to claim 4: Jardin discloses the method of claim 1 wherein said step of negotiating a secure communications session comprises negotiating an SSL session with the client in place of the server. (Col 6, lines 1-3)

As to claim 6 : Jardin discloses the method of claim 1 wherein the step of forwarding decrypted application data to said one of said plurality of servers comprises forwarding unauthenticated application data. (Col 7, line 4)

As to claims 8 and 14 : Jardin teaches the method of claim 1 wherein, prior to said step establishing a communications session with one of said plurality of servers, the method includes the step of:

- selecting one of said plurality of servers to forward said decrypted authentication data to based on a load-balancing algorithm. (Col 8, lines 27-67 through Col 9 line 10; Jardin teaches different algorithms in his embodiments to balance the load on the plurality of servers)

As to claim 9: Jardin disclose the method of claim 8 further including the step of: tracking data passing between the client and said one of said plurality of servers. (Col 8, lines 31-33)

As to claim 11: the method of claim 10 further including tracking, for each session, an initialization vector. (Col 5, lines 16-26)

As to claim 12: Jardin disclose an apparatus coupled to a public network and a secure network, communicating with at least one client via the public network and communicating with one of a plurality of servers via the secure network, comprising:

- a network interface communicating with the public network and the secure network;(Col 2, lines 57-65)
- at least one processor;(Col 6, lines 32-34)
- programmable dynamic memory addressable by the processor; ()

- a communications channel coupling the processor, memory and network communications interface; (Col 2, lines 57-65)
- a proxy TCP communications engine; (Col 4, lines 34-36)
- a proxy SSL communications engine; (Col 4, lines 24-29))
- a server TCP communications engine; (Col 2, lines 54-65)and
- a packet data encryption and decryption engine. (Col 7, lines 29-32)

As to claim 13: Jardin disclose the apparatus of claim 12 wherein the negotiation manager enables the apparatus as a TCP and SSL proxy for the server. (Col 4, lines 24-29)

As to claim 15: Jardin disclose the apparatus of claim 12 wherein the encryption and decryption engine decrypts encrypted packet data to produce application data. (Col 6, line66 through Col 7 line 2)

As to claim 18: The apparatus of claim 16 further including a recovery manager using said database to recover from communication errors. (Col 8, lines 27-41)

As to claim 19: Jardin discloses the apparatus of claim 12 wherein the packet data encryption and decryption engine decrypts packets from SSL data which spans over multiple TCP segments and forwards packet data to a server

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which is not authenticated. (Col 7, Col 7, line 4 and lines 44-45; the examiner deeming the data spanning over multiple TCP segments to be inherent to any TCP/IP system, which split the application data packets to multiple TCP/IP packets to be transmitted over the network.)

As to claim 20: Jardin disclose the apparatus of claim 19 wherein said data is not buffered during decryption. (Col 3, lines 4-13 / in one embodiment the first server is configured to decrypt contents of the data packet and re-direct the data packet)

As to claim 21: The apparatus of claim 19 wherein said data is buffered for a length sufficient to complete a block cipher used to encrypt the data.(Col 2, lines 65, through Col 3, line 3 / the broker in the second embodiment have dynamically allocated buffer)

As to claim 24: Jardin system discloses the method of claim 23 wherein the secure communication is SSL protocol encrypted application data. (Col 4, lines 54-56)

As to claim 25: Jardin system discloses the method of claim 23 wherein said step of receiving comprises the sub steps of initiating a communications session with the enterprise and negotiating a secure communication session with the device.(items 210, 220, 230 and 240 of FIG 2; describes the "handshake " between the client and the server which used to start any SSL communication between the server and the client)

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As to claim 26: Jardin system discloses the method of claim 23 further including the step of negotiating an open communication session with said at least one server of the enterprise and wherein said step of forwarding includes forwarding decrypted data via the open communication network. (Col 6, lines 40-47 and Col 7, line 4)

As to claim 27: Jardin discloses the method of claim 23 wherein said step of receiving communications includes receiving a plurality of secure communication sessions from a plurality of customers. (Col 4, lines 11-16)

As to claim 28: Jardin discloses the method of claim 27 further including a step of selecting one of a plurality of enterprise servers to which to direct data in said step of forwarding said decrypted packet data.(Col 8, lines 27-67 through Col 9 line 10)

Claim Rejections - 35 USC § 103

12. Claims 5 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jardin US (6,681,327) as applied to claim 1 above, and further in view of Narad US (6,157,955).

As per claim 5 and 22: Jardin do not explicitly explain a packet authentication. However Narad teach the using and tracking of both a checksum (column 36, lines 40, through column 37, line 20) and a cryptographic key (column 27, lines 4-7) to verify the validity

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of the data packet. Therefore, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Jardin with the teaching of Narad to authenticate received packets after the final packet in the data segment received. One would be motivated to do so in order to identify and discard packets that have been altered or modified.

13. Claims 10,11,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jardin US (6,681,327) as applied to claim 1 above, and further in view of Abramson et al US (6,539,494).

As per claims 10, 11, 16 and 17: Jardin do not explicitly explain establishing a database to track session information. However Abramson et al teaches the using and tracking of session information database (column 1, line 62, through column 2, line 18) to recover from communication errors. Therefore, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Jardin with the teaching of Abramson to backup and track session information in communication between client and a server. One would be motivated to do so in order to enable the system to recover from communication failures transparently (Col 4, lines 55-67) and reconstitute the session data into a new session without loss of data.

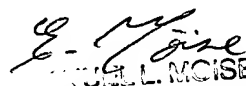
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Firas Alomari whose telephone number is (571) 272-7963. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AYAZ SHEIKH can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Firas Alomari
Examiner
Art Unit 2136

FA


E. J. McISAAC
PRIMARY EXAMINER